(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 2 June 2005 (02.06.2005)

PCT

(10) International Publication Number WO 2005/051046 A1

(51) International Patent Classification7: C09K 11/06, C07D 209/86

H05B 33/14.

(21) International Application Number:

PCT/JP2004/017643

KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku. Tokyo, 1468501 (JP). KUROKAWA, Minako [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).

(JP). HASHIMOTO, Masashi [JP/JP]; c/o CANON

(22) International Filing Date:

19 November 2004 (19.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2003-392090 2004-325838

21 November 2003 (21.11.2003) JP 10 November 2004 (10.11.2004)

- (71) Applicant (for all designated States except US): CANON KABUSHIKI KAISHA [JP/JP]; 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): TAKIGUCHI, Takao [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP). OKADA, Shinjiro [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP). TSUBOYAMA, Akira [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP). IGAWA, Satoshi [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP). KAMATANI, Jun [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo,

(74) Agents: OKABE, Masao et al.; No. 602, Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 1000005 (JP).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG. MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH. PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LIGHT-EMITTING DEVICE, ORGANIC COMPOUND AND DISPLAY

(57) Abstract: There are provided an organic light-emitting device having a light output of a high emission efficiency and a high luminance and having high durability and a novel organic compound that enables the device to be attained. An organic compound of a long fluorescence lifetime represented by an organic compound having, in a molecule, at least one partial structure comprising an unsubstituted or substituted indole ring and at least one partial structure comprising an unsubstituted or substituted carbazole ring is used in an organic light-emitting device.